

In the Claims:

OK Claim 1. (Previously Amended) A modified anti-viral peptide comprising:
a peptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541, and that exhibits anti-viral activity against human immunodeficiency virus (HIV), and
a succinimidyl or maleimide containing group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds.

Claim 2. (CANCELED)

OK Claim 3. (Previously Amended) The modified peptide of claim 1 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

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cont'd.

OK Claim 4. (Previously Amended) The modified peptide of claim 1 wherein said peptide is DP 178 and comprises the amino acid sequence of SEQ ID NO:1.

Claim 5. (CANCELED)

OK Claim 6. (Previously Amended) The modified peptide of claim 1 wherein said peptide is selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

Claims 7-18. (CANCELED)

OK Claim 19. (Previously Amended) A composition for use in the prevention and/or treatment of acquired immune deficiency syndrome (AIDS) comprising a peptide wherein said peptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541, and that exhibits anti-viral activity against human immunodeficiency virus (HIV), modified with a succinimidyl or maleimide containing group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds.

OK Claim 20. (Previously Amended) The composition of claim 19 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

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B Claim 21. (Previously Amended) The composition of claim 20 wherein said peptide is DP 178 comprising the amino acid sequence of SEQ ID NO:1.

Claims 22-30. (CANCELED)

OK Claim 31. (Previously Added) The composition of claim 19 wherein said peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

NZ Claim 32. (Previously Added) A conjugated peptide comprising the modified anti-viral peptide of claim 1 covalently bonded to a blood component.

NZ Claim 33. (Previously Added) The conjugated peptide of claim 32 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

NZ Claim 34. (Previously Added) The conjugated peptide of claim 32, wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

NZ Claim 35. (Previously Added) The conjugated peptide of claim 32, wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

B¹ Claim 36. (Previously Added) A composition comprising the modified anti-viral peptide of claim 1.

Claim 37. (Previously Added) The composition of claim 36 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

Claim 38. (Previously Added) The composition of claim 36 wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

Claim 39 (Previously Added) The composition of claim 36 wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, ~~SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.~~

NR Claim 40. (Previously Added) A composition comprising the conjugated peptide of claim 31.

NR Claim 41. (Previously Added) The composition of claim 40 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

NR Claim 42. (Previously Added) The composition of claim 40 wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

B1 NR Claim 43. (Previously Added) The composition of claim 40 wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

NR Claim 44. (Previously Added) A method of treating human immunodeficiency virus (HIV) infection in a patient, comprising administering to said patient an effective amount of the modified anti-viral peptide of claim 1.

NZ Claim 45. (Previously Added) The method of claim 44 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

NZ Claim 46. (Previously Added) The method of claim 44 wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

NZ Claim 47. (Previously Added) The method of claim 44 wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

NZ Claim 48. (Previously Added) A method of treating human immunodeficiency virus (HIV) infection in a patient, comprising:

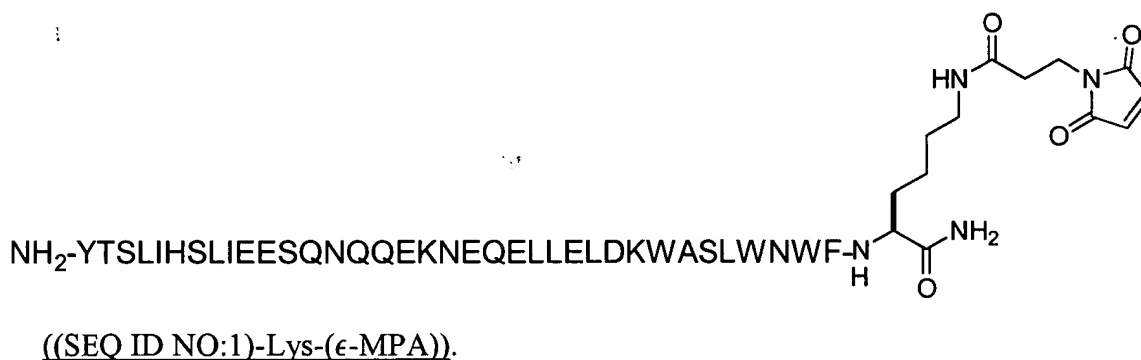
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reacting the modified anti-viral peptide of claim 1 for a time and under conditions effective to form a covalent bond between said modified anti-viral peptide and said blood component, thereby forming a conjugate; and
administering said conjugate to said patient.

NZ Claim 49. (Previously Added) The method of claim 48 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

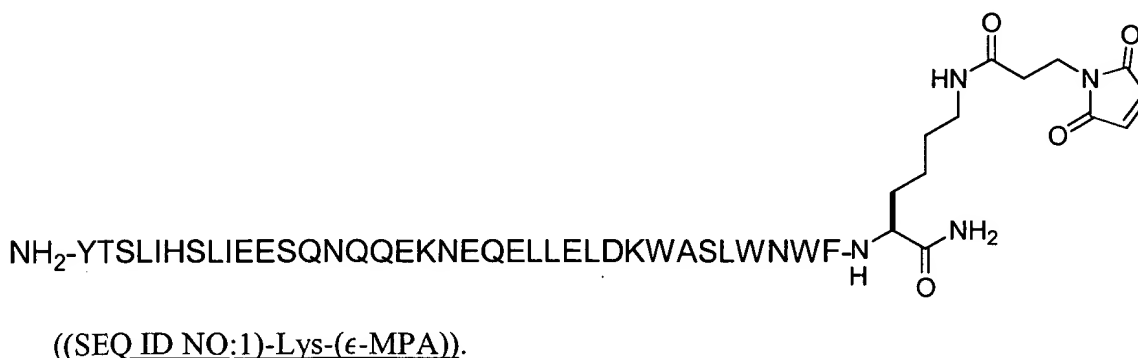
NZ Claim 50. (Previously Added) The method of claim 48 wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

NR Claim 51. (Previously Added) The method of claim 48 wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

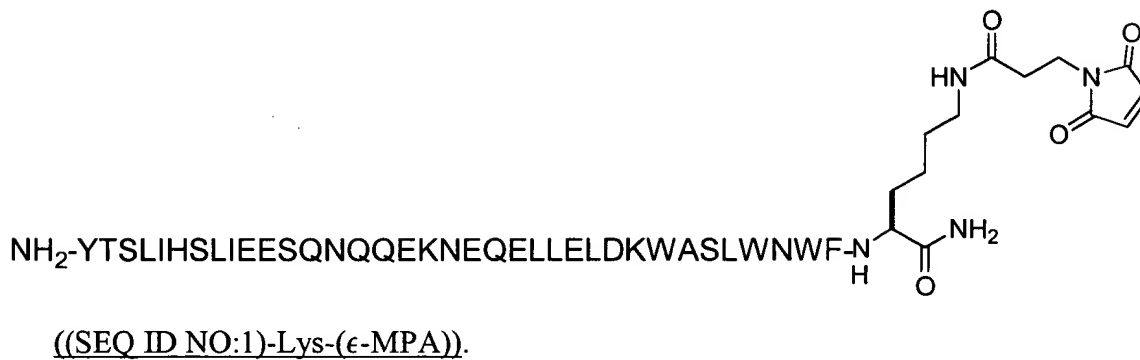
OK (52) (Currently Amended) The modified anti-viral peptide of claim 1 having the formula:



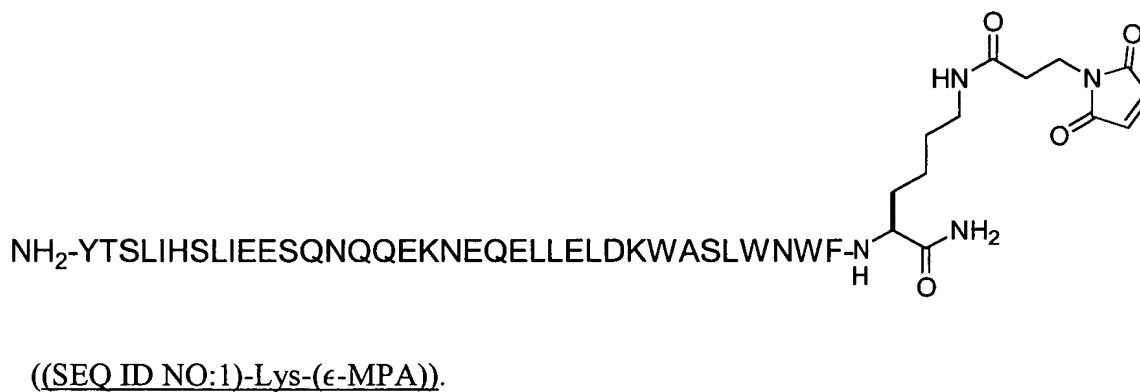
OK (53) (Previously Added) The composition of claim 19 comprising the modified peptide formula:



NR 54. (Currently Amended) The conjugated peptide of claim 32 ^{NR} comprising the modified peptide formula:

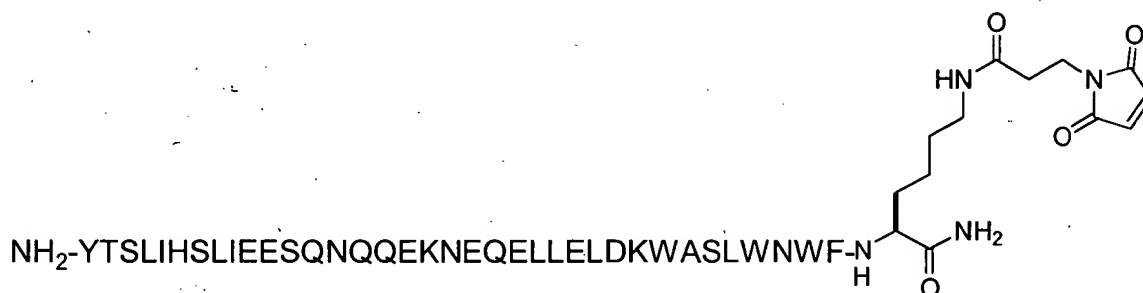


OL (55) (Currently Amended) The composition of claim 36 ^{NR} comprising the modified peptide formula:

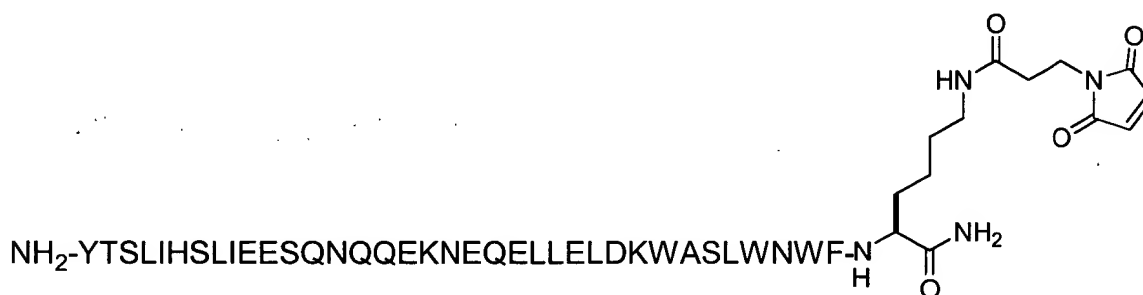


NR 56: (Currently Amended) The composition of claim 40 wherein the conjugated peptide comprises the modified peptide of formula:

((SEQ ID NO:1)-Lys-(ϵ -MPA)).



NR 57: (Currently Amended) The method of claim ~~44~~ wherein the modified peptide has the formula:



((SEQ ID NO:1)-Lys-(ϵ -MPA)).

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